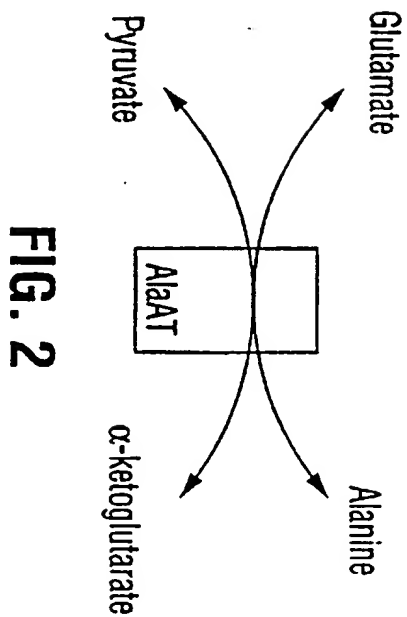


FIG. 1



Title: ROOT SPECIFIC, AND STRESS-INDUCED
EXPRESSION OF TARGET ET AL.
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Inventor: Allen G. GOOD

Application No.: 09/493,803

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GTGACCTGCAGGTCAACGGATCCTAATCGGGTATATCCCGACCCGGAAGAAACGTAGCACGTTG
-250
ACAAACTTCATATGATCCGAGTGAATCAAGCCAAAGGGGATGACACACAGCTCAGCTTTCGTTT
-180
CGGTCCAATCGCTGTTCCAACCTTACTTACAAGTCGTACACGTTCTCTCTCTCTCTCTCTCACTC
-110
ACTTCCTCTTATAAAGACTCTCTGATCAACGTATATCGGAACCTCCATTCTTTGATACCATCGATTA
-40
TACTAAGAGAGGTGATGATCTTTAATCACTGTTTGATATCCCTTAACCTTGTATCCATTTACTCTGTTCA
31
ATCATTTTGTAGAG

FIG. 3

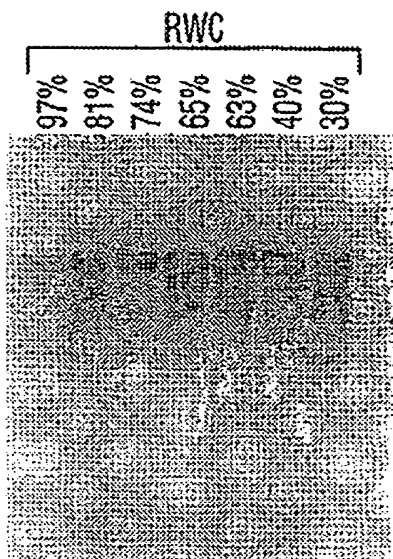


FIG. 4A

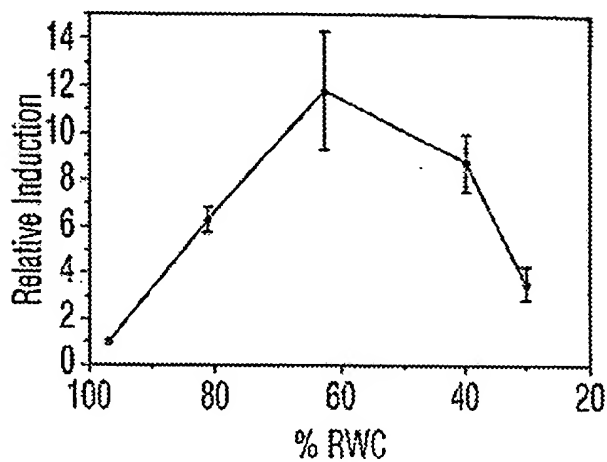


FIG. 4B



FIG. 4C

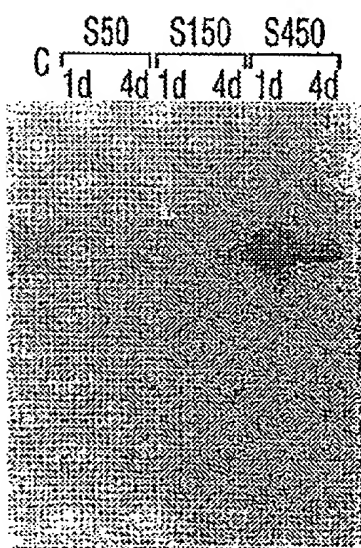


FIG. 4D

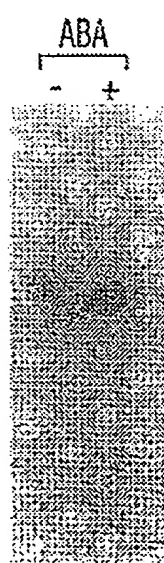


FIG. 4E



GGCCACAAAACCGCGAAGATAGACGACAGCTAGAGCGCTGGAGATACCTCGTCTCTGCGCCCGCTTCTGCTTAGTTGATCTCGCC 94
ATGCTGCCACCGTGGCGGTGGACACCTGAACCCCAAGTTTAATGTAGTATGCTGCGTGGAGAGATTGCATCATGCTCAGCGCTTG 190
M A A T V A V D N L N P K V L K C E Y A V R G E I V I H A Q R L 32
CAGAACAGCTAAGACTCAACGAGGCTCTTACCTTTGATGAGATCCTCTATTGTAACTTGGAAACCAATCTCTTGGTCAAGCAACGATT 286
Q E Q L K T Q P G S L P F D E I L Y C N I G N P Q S L G Q Q P V 64
ACATCTTCAAGGAGTCTTGCCTTGTGATCATCAGACCTGTGCAAGAGAGAAATCAACATTGTTCAAGTCTGATTTCTCTCGA 382
T F F R E V L A L C D H P D L L Q R E E I K T L F S A D S I S R 96
GCAAGACAGATTCTTCCATGATACCTGGAAGACCAAGAGCATACAGCCATAGCCAGGATTAAGGACTTCTGATGCAATTGCTTCTGGG 478
A K Q I L A M I P G R A T G A Y S H S Q G I K G L R D A I A S G 128
ATCGCTTCAAGAGATGATTCCTGCTATGCTGATGACATTTTCTCAGATGAGCAAGTCTGGGTCACCTGATGATGCAATTACTGATA 574
I A S R D G F P A N A D D I F L T D G A S P G V H L M M Q L L I 160
AGGAATGAGAAAGATGCAATCTTGTCCCGATTCCTCAGTACCCCTTGTACTCGGCTTCATAGCTCTTCATGGCGGAGCTTGTCCCATACTAT 670
R N E K D G I L V P I P Q Y P L Y S A S I A L H G G A L V P Y Y 192
CTCAATGAATCGACGGGCTGGGGTTGGAACTCTGATGTTAAGAACCACTGAAGATGCTCGGTCAAGAGGCAATCAACGTTAAGGCTTGGTG 766
L N E S T G W G L E T S D V K K Q L E D A R S R G I N V R A L V 224
GTATCAATCCAGAAATCCAACTGGACAGTACTTGTGAAAGAAACCAATATGACATAGTGAAGTTCTGCAAAAATGAGGCTCTGTCTCTTA 862
V I N P G N P T G Q V L A E E N Q Y D I V K F C K N E G L V L L 256
GCTGATGAGTATACCAAGAGACATCTATGTTGACAAACAAAGAAATTCACCTCTTCAAGAGATAGTGAGATCCTTGGGATACGGCGAGAGGAT 958
A D E V Y Q E N I Y V D N K K F H S F K K I V R S L G Y G E E D 288

FIG. 5



CTCCCTTAGTATCATATCAATCTGTTTCTAAGGGATATTATGTAGTGTGTAAGAGGTGGTTACTTTGAGATTACTGGCTTCAGTCTCCA 1054
L P L V S Y Q S V S K G Y, Y G E C G K R G G Y F E I T G F S A P 320
GTAGAGAGCATCTACAAATAGCATCAGTGAACCTATGCTCCAAATATCACTGGCCAGATCCTTGTAGTCTTGTGATGAAACCAAGGCT 1150
V R E Q I Y K I A S V N L C S N I T G Q I L A S L V M N P P K A 352
AGTATGATCATACGCTTCATACAGGCAAGAAAGATGGAATCCTCGCATCTTTAGTCTGTCGAGGCAATGGAGCATGCAATCAATAAA 1246
S D E S Y A S Y K A E K D G I L A S L A R R A K A L E H A F N K 384
CTGAGGGAATTAATTGCAAGAGGCTGAAAGCAATGTAAGTGTCCCTCAATCTGTCTGCCACAGAAAGCAATTGAGGCTGCTAAAGCTGCT 1342
L E G I T C N E A E G A M Y V F P Q I C L P Q K A I E A A K A A 416
AACAAGCACTGATGCATTCTATGCTCTTGGTCTCCTCGAGTGAATGTCGTGTGCCCTGATCAGGATTTGGCCAGTTCTCTGGCACA 1438
N K A P D A F Y A L R L L E S T G I V V P P G S G F G Q V P P G T 448
TGGCACTTCAGGTGACGATCCTCCGAGAGGATTAAGATCCCGCAGTCATCTCCGCTTCACGGTGTTCATGAGGCGTTCAATGTCAGAGTAT 1534
W H F R C T I L P Q E D K I P A V I S R F T V F H E A F M S E Y 480
CGTGAATAAAGTGTGCAACATGTGGATTACATACAACCTCATGGGGTTTTCGTAAGGCGTTCTTGTTTGGCCCCCCCCCTTCTCTCTC 1630
R D 482
TCTCTCTGACAGCATCCTCTCTAGATGAGACAAATTAAGCAAGCCATGTCATTCCTTAATAAAAAA 1701

FIG.5 Cont'd



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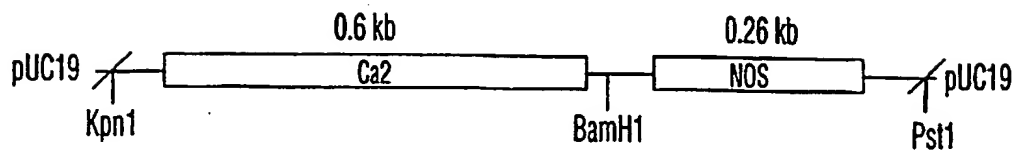


FIG. 6

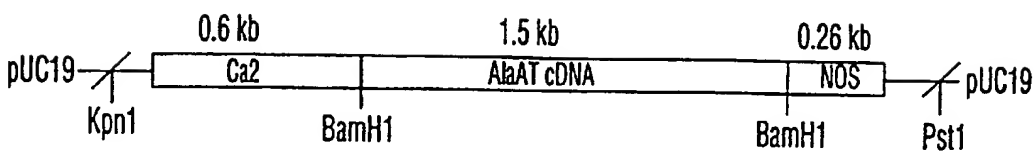


FIG. 7A

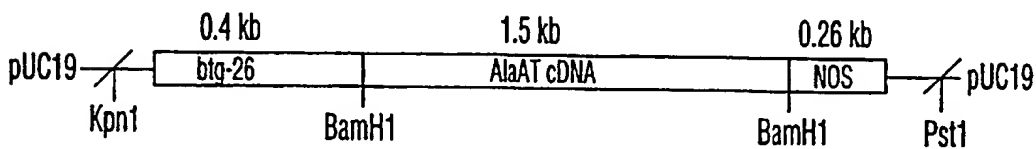


FIG. 7B

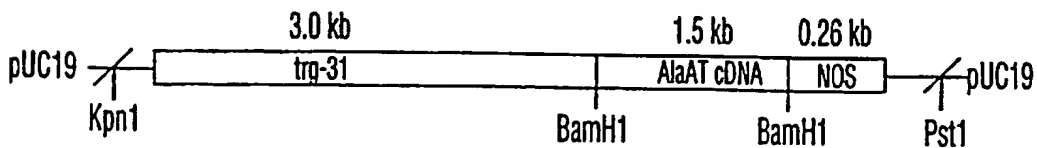


FIG. 7C

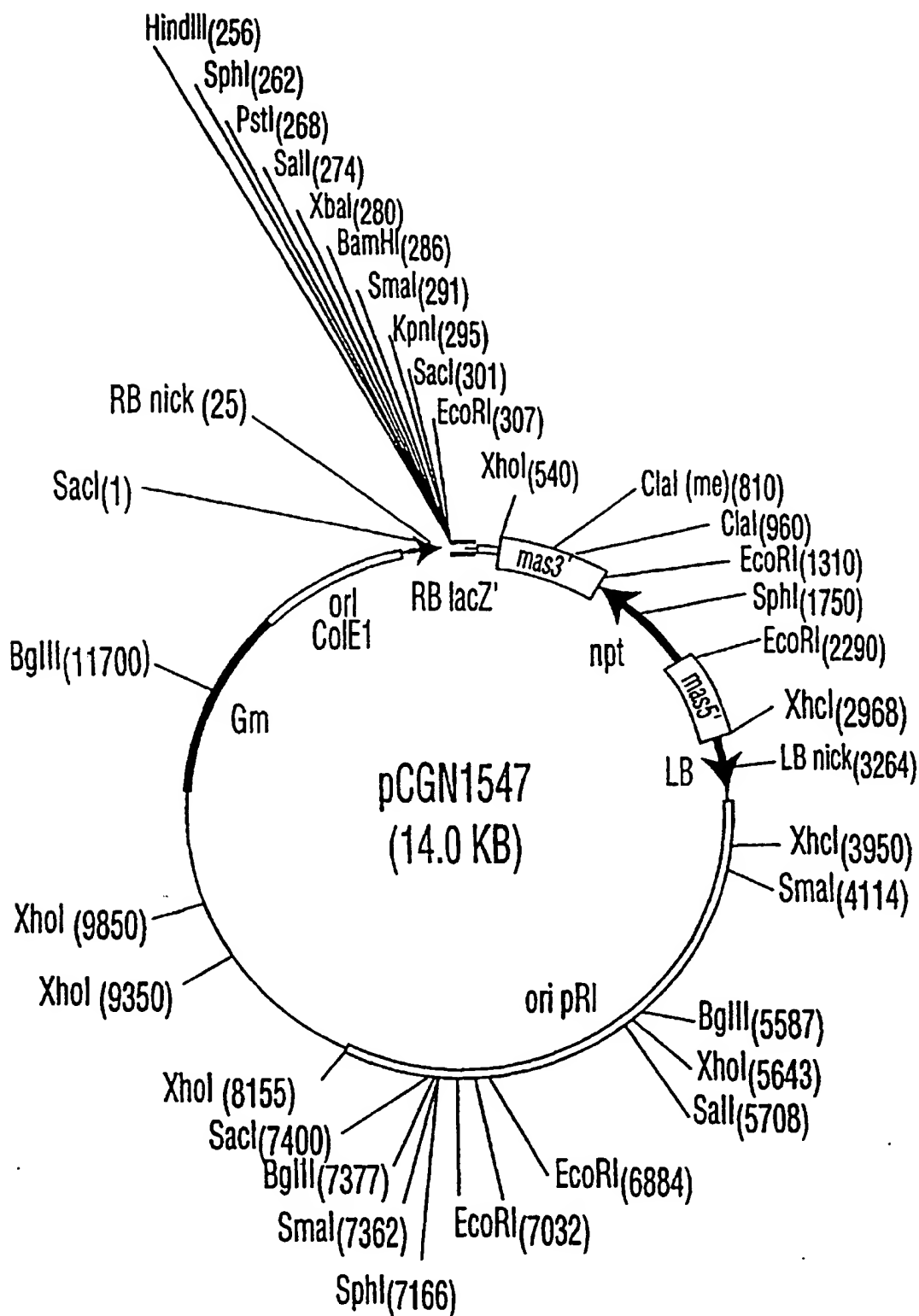


FIG. 8



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Application No.: 09/493,803

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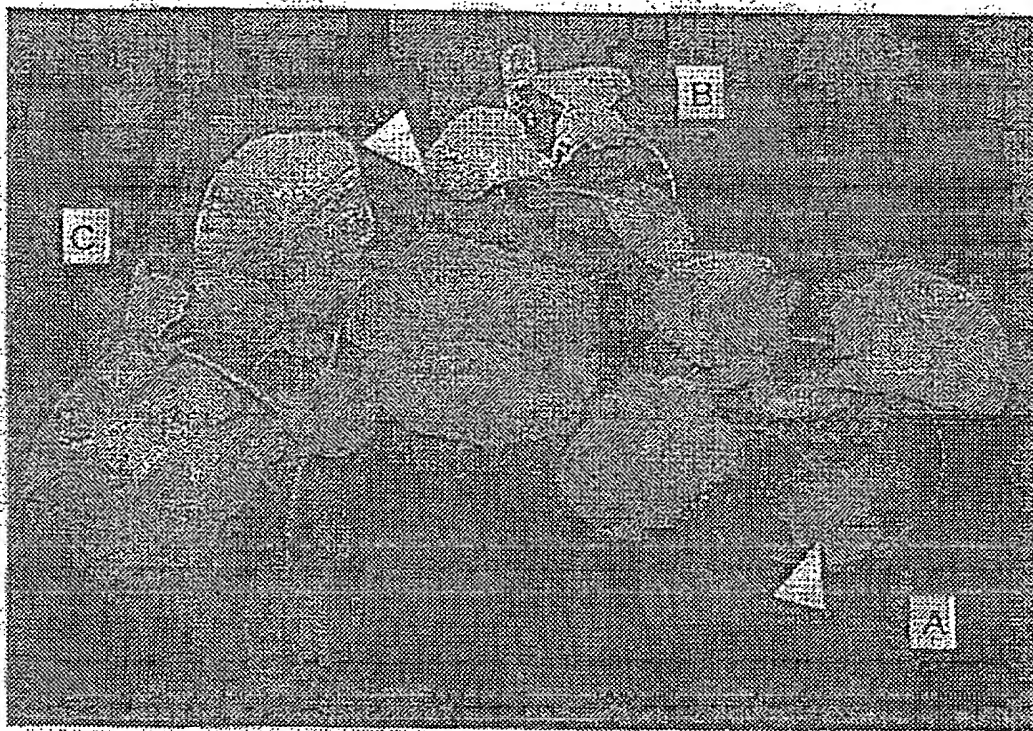


FIG. 9

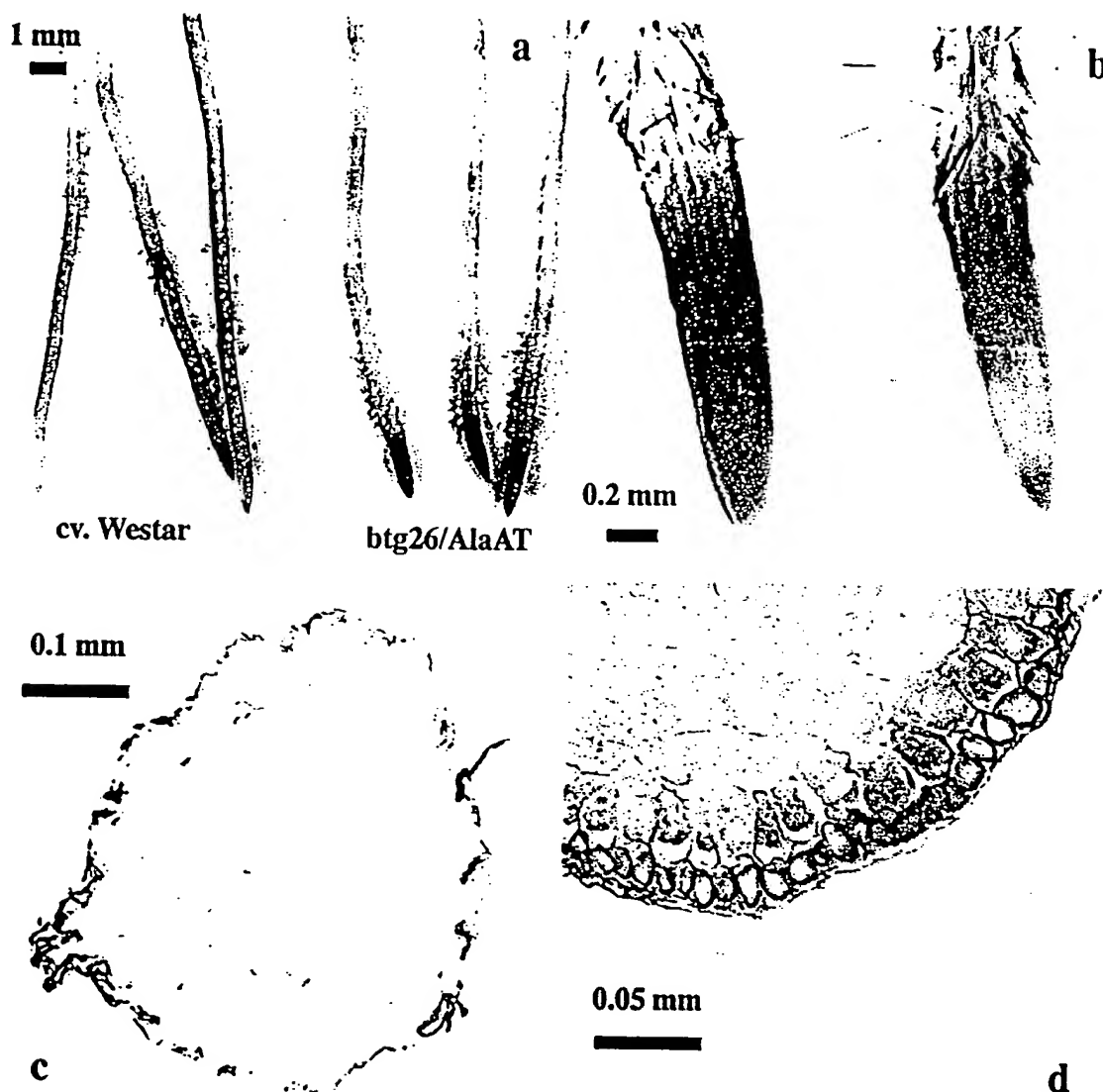
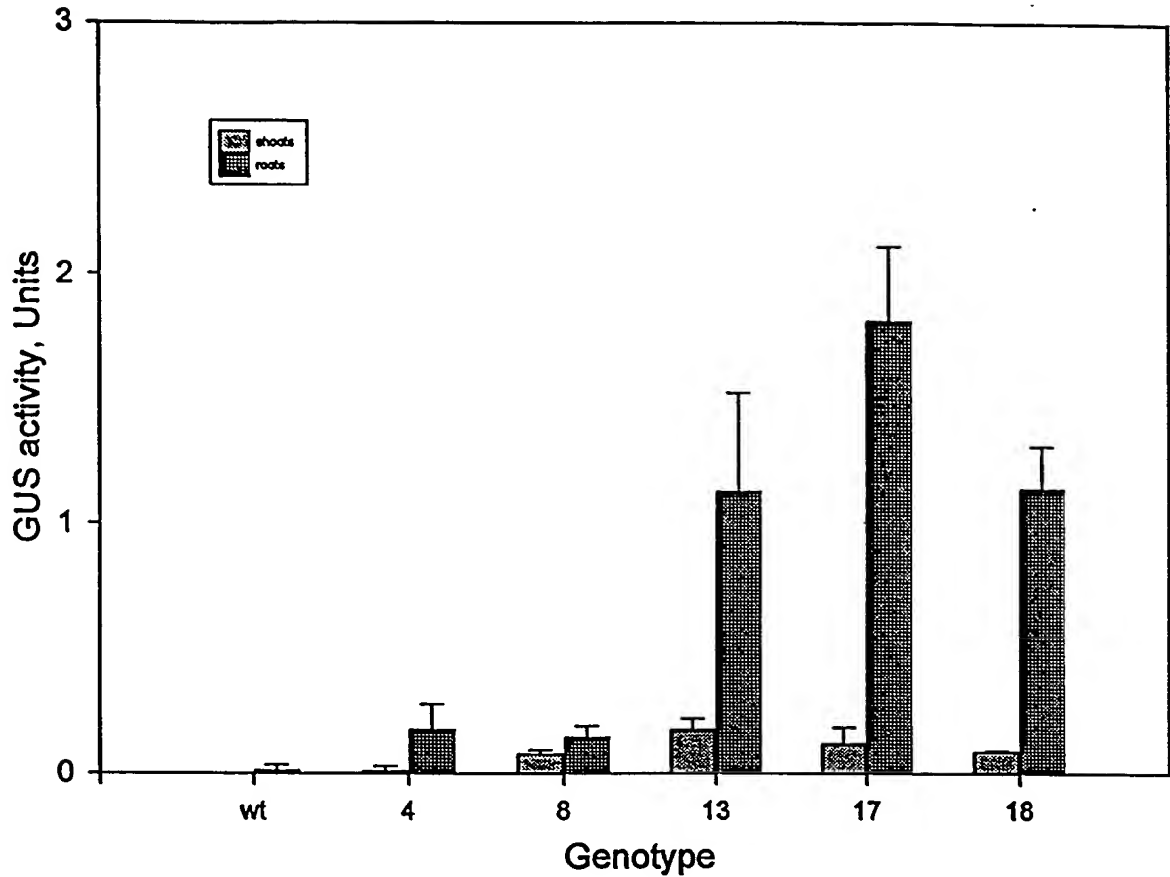


FIGURE 10



GUS activity in btg26/GUS transgenic lines



Root/shoot ratios:

btg26/GUS, line 4	-	19.5
btg26/GUS, line 8	-	1.9
btg26/GUS, line 13	-	6.5
btg26/GUS, line 17	-	15.7
btg26/GUS, line 18	-	13.2

FIGURE 11

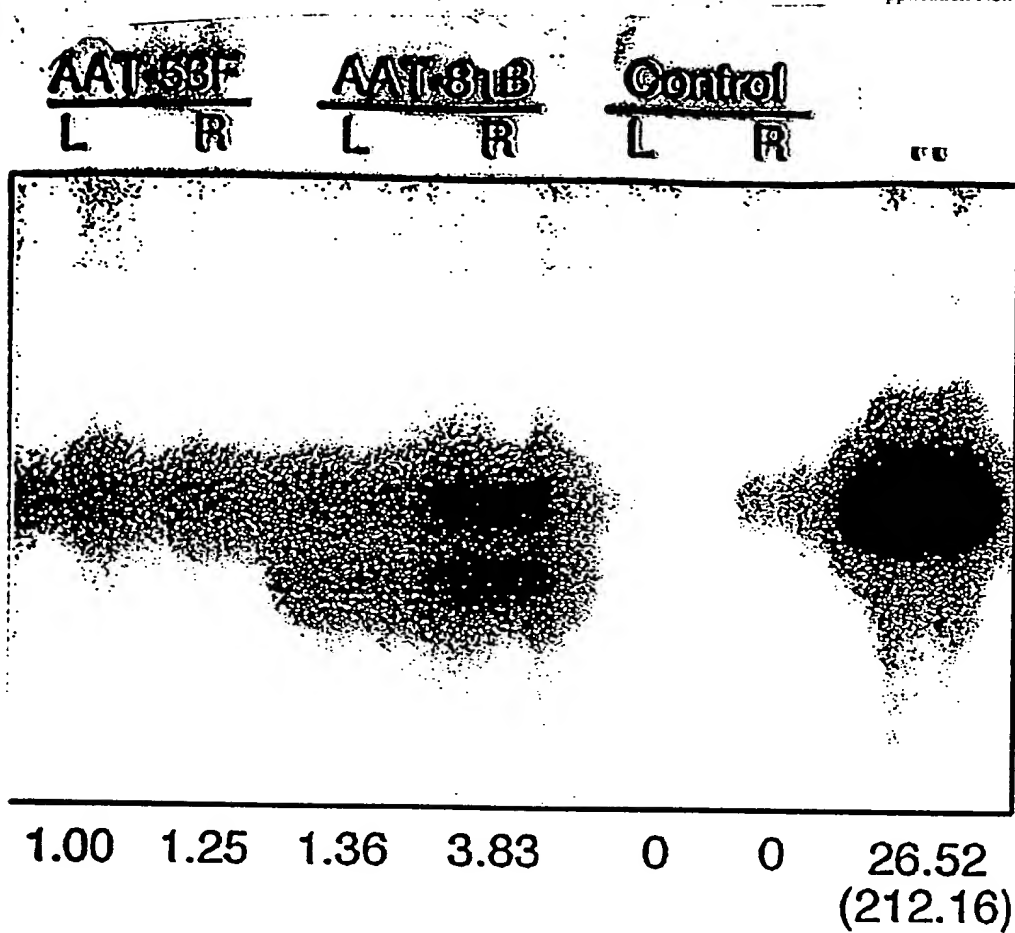


FIGURE 12

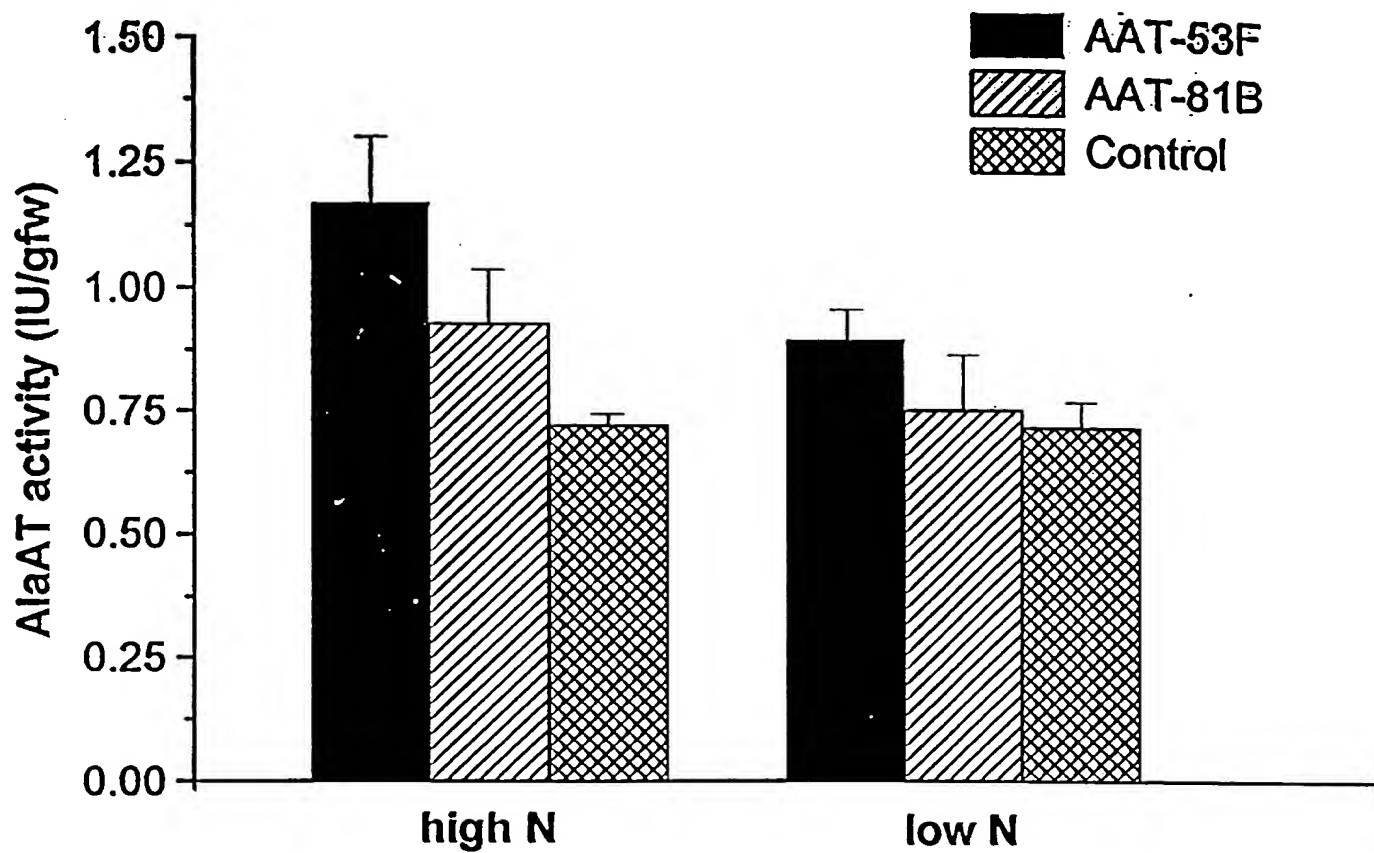
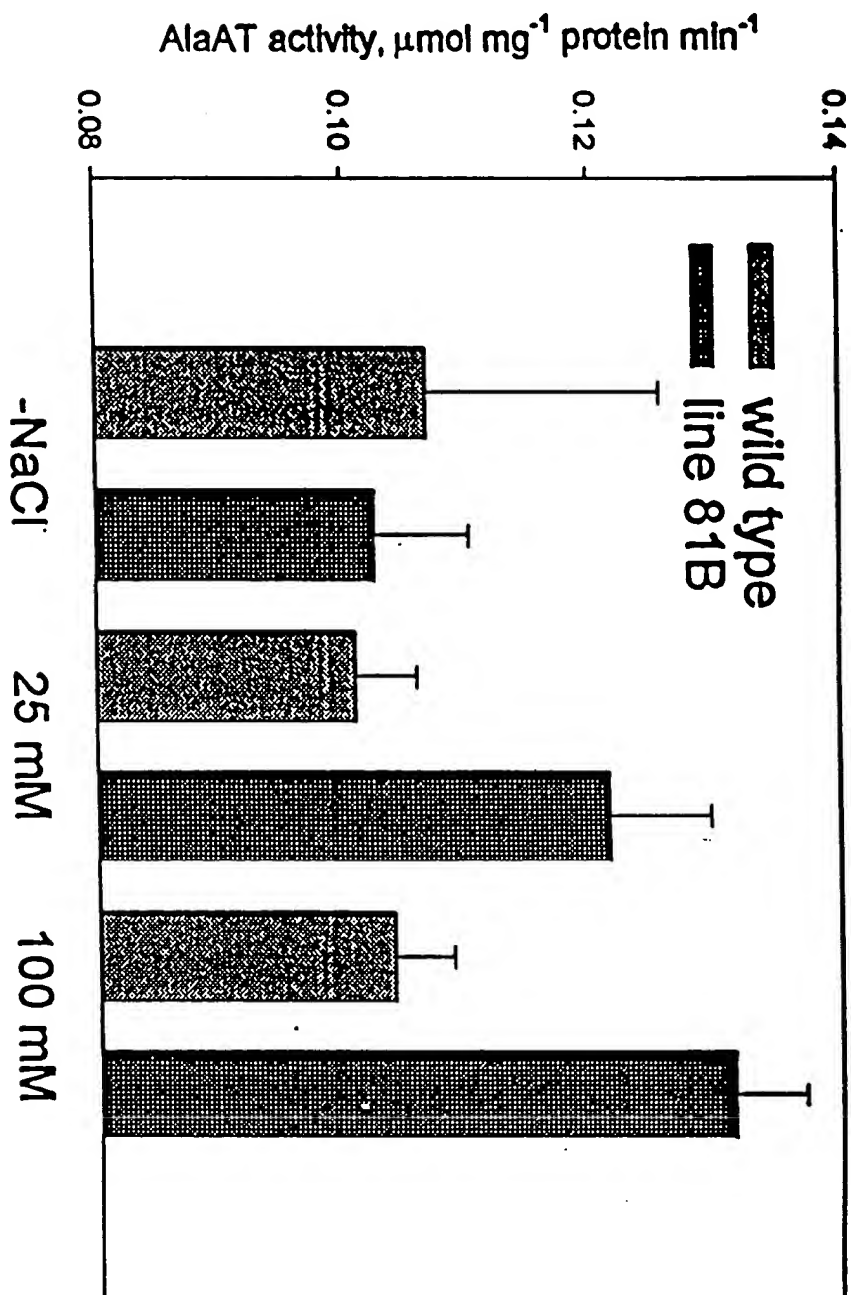
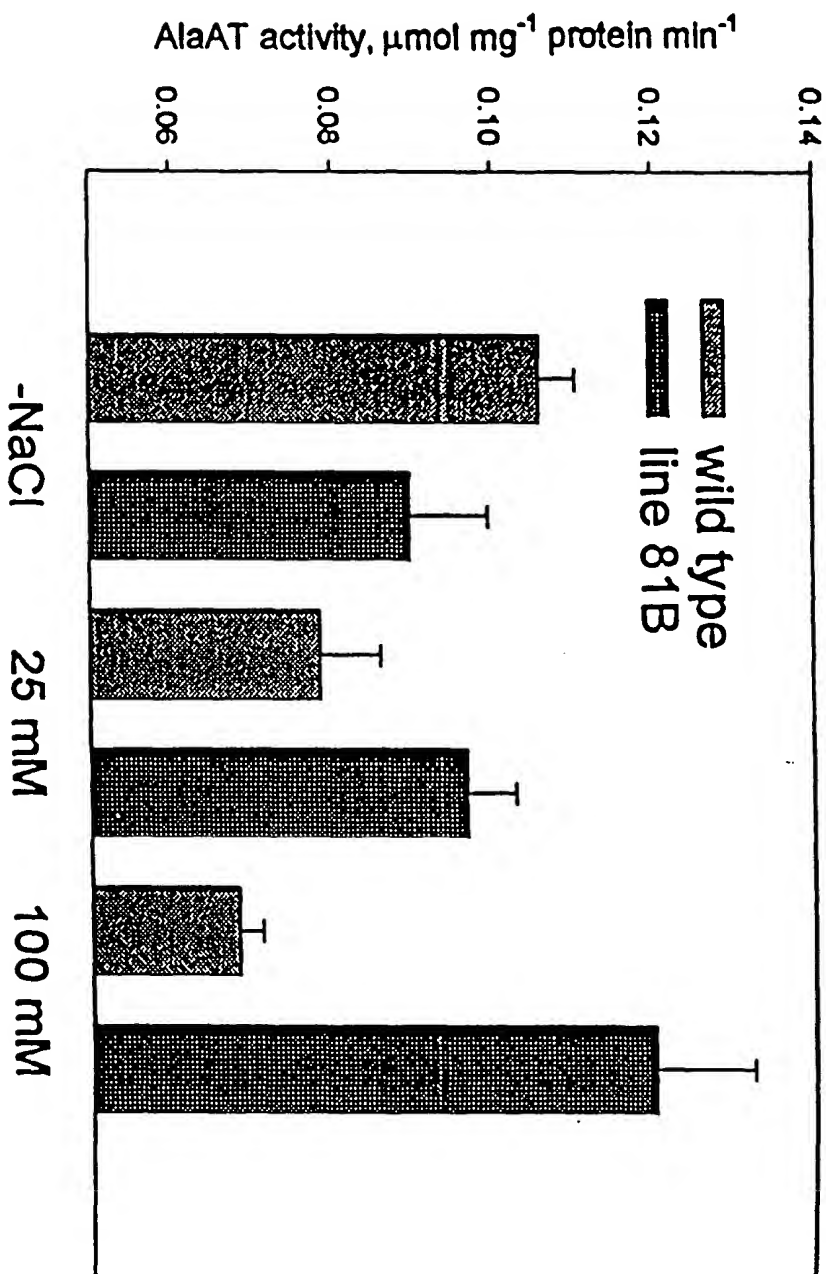


FIGURE 13



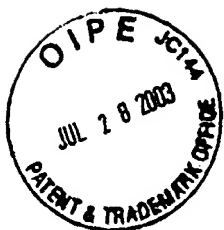
AlaAT activity in shoots of wild type cv. Westar and transgenic,
 b1g26/AlaAT line 81B, plants grown hydroponically on 0.5 mM nitrate
 after 36 hours of salt treatment

Figure 14



AlaAT activity in roots of wild type, cv. Westar, and transgenic,
btg26/AlaAT line 81B, plants grown hydroponically on 0.5 mM nitrate
after 36 hours of salt treatment

Figure 15



Effect of salinity on biomass accumulation of wild type, cv. Westar, and transgenic, btg26/AlaAT, line 81B, plants

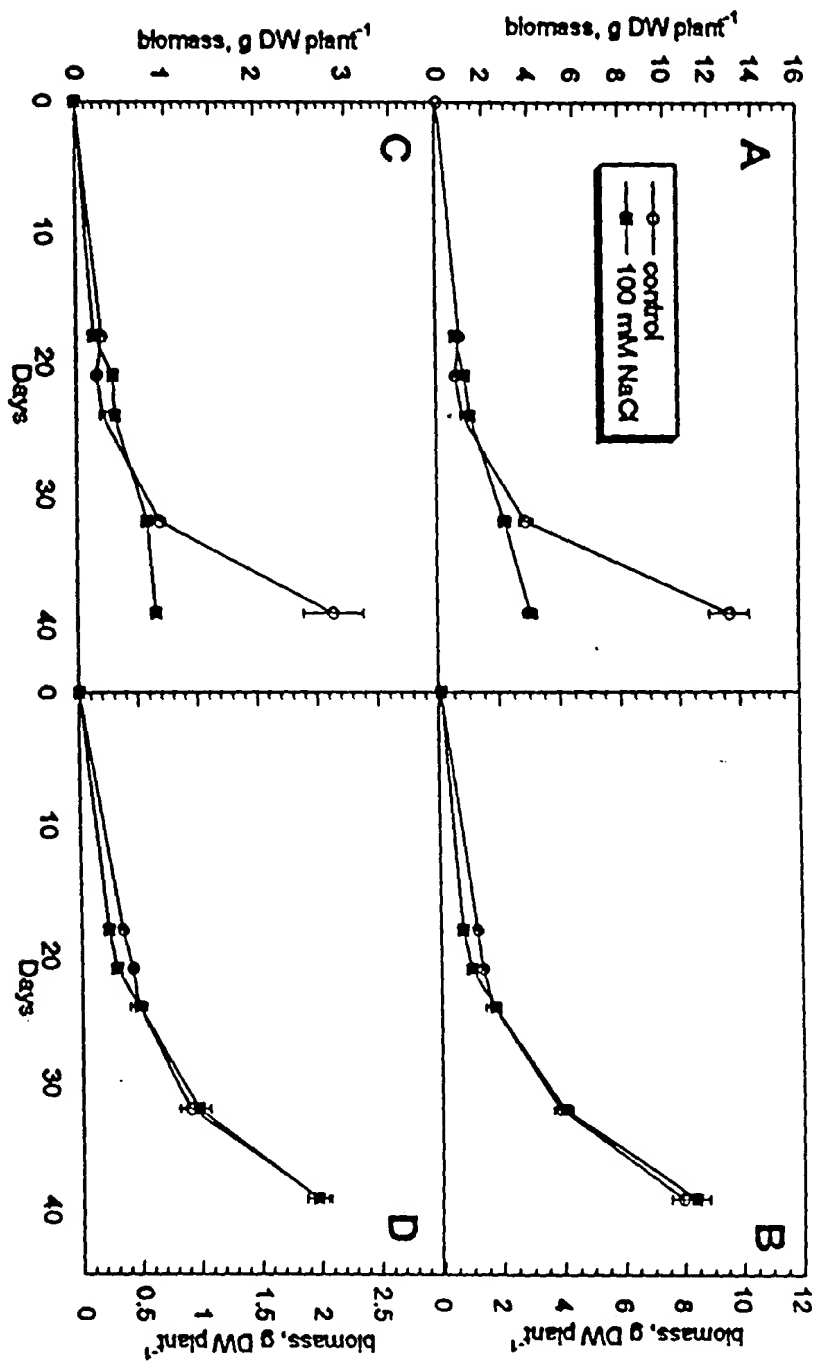


Figure 16